REMARKS

Claims 1-5 and 8-16 are currently pending in this application. No claim is amended.

I. Rejection under 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 3,177,652 to Lewis ("Lewis") for the reasons provided on page 2 of the outstanding Office action. The Examiner asserts that "Lewis discloses using mixtures of gaseous oxides such as nitrous oxide and nitric oxide with solid fuel in a device that generates gas," broadly pointing to column 5 of Lewis. Office action, p. 2. No such disclosure can be found in column 5 or anywhere else in Lewis. In fact, the only reference to nitric oxide or nitrous oxide explicitly appears at column 5, lines 43 through 45. However, they are not recited together as being in a mixture. Instead, they are recited as alternatives that can be used as the oxidizing material. Thus, one would have to pick and choose among these recited materials to obtain a composition as so recited by the Examiner in the Office action. Yet the Federal Circuit does not allow "the mechanical dissection and recombination of [a prior art reference's components] to create hindsight anticipations with the guidance of applicants' disclosure on the theory that such reconstructed disclosures *describe* [the claim compositions] within the meaning of § 102." *In re Ruschig*, 343 F.2d 965, 974, 145 U.S.P.Q. 274, 282 (C.C.P.A. 1965)(emphasis in original). "A claim is anticipated **only** if each and every element **as set forth** in the claim as found . . . in a single prior art reference." M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California,* 814 F. 2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987) (emphasis added).

Thus, because the examiner has improperly dissected and recombined the disclosure of Lewis, applicants respectfully submit that the anticipation rejection over Lewis is improper. For at least these reasons, Applicants respectfully request withdrawal of this rejection.

II. Rejections Under 35 U.S.C. § 103(a)

A. Claims 1, 2, 8, and 11 rejected over U.S. Patent No. 5,941,562 to *Rink et al.* ("Rink") in view of Lewis

Claims 1, 2, 8, and 11 are rejected as being allegedly obvious under 35 U.S.C. § 103(a) over Rink in view of Lewis for the reasons provided in the outstanding Office action at pages 2 and 3. The Examiner asserts that Rink can be combined with Lewis, because Lewis suggests that it is known to use gaseous mixtures of nitrous oxide and nitric oxide in association with a solid fuel to generate gas. Office action, p. 3. Applicants disagree with this rejection for a number of reasons. First, as discussed above, Lewis does not teach the use of a mixture of nitrous oxide and nitric oxide in association with solid fuel. Second, the Examiner's combination of Lewis' teaching of nitric oxide with Rink's disclosure is improper because Rink teaches away from the use of nitric oxide repeatedly and consistently. Rink repeatedly states that nitric oxide is undesirable in the gaseous mixture, characterizing it, for example, as an undesirable product.[1] For example at column 8, lines 29-30 and 41-45, Rink states that the decomposable gas source materials used in the practice of the invention preferably form products of decomposition which

1 Applicants note a typographical error in Rink at column 11, line 36 that identifies nitrous oxide as NO. Of course, nitrous oxide is N_2O and nitric oxide is NO.

do not contain undesirable levels of undesirable species such as nitric oxide (NO). The undesirable nature of nitric oxide is again repeated at column 10, lines 19-22 and lines 34-37. Thus, the Examiner's proposed modifications of Rink would render it unsatisfactory for its own intended purpose. Since the prior art reference must be considered in its entirety, i.e. as a whole, including portions that would lead away from the claimed invention, the Examiner cannot turn a blind eye to Rink's own teachings which exclude the inclusion of nitric oxide in its own gaseous mixtures. Because the proposed modification would render the prior art invention being modified in a way that is unsatisfactory for its intended purpose, there can be no finding for a suggestion to make the proposed modification. See M.P.E.P. § 2143.01 (IV). Finally, because Rink has such a strong disfavor for using nitric oxide, one of ordinary skill in the art at the time the invention was made would not have yielded a combination having a predictable result to achieve Applicants' claimed invention. See M.P.E.P. § 2143.02; *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 U.S.P.Q. 2d 1385, 1395 (2007).

It also is improper to combine Lewis with Rink because the teachings of these disclosures are significantly different in both their structure and functions, and as such, one would not have logically commended itself to the other to an inventor's attention in considering the invention as a whole. See M.P.E.P. § 2141.01(a) I.-II. Specifically, Rink is drawn to an improved adaptive output inflator that is designed for inflatable restraint systems, such as airbags. And yet Lewis is drawn to an ignition system for rocket propellants. To look to a rocket ignition system to initiate an airbag inflation system is clearly overkill and thus counterintuitive. Moreover, the approaches

used in these two references are inapposite. Specifically, Rink is drawn to providing a gas mixture containing nitrous oxide where initiation of the decomposition of the nitrous oxide is provided by a heat source. Rink, col. 4, ll. 14-20. In contrast, Lewis' ignition system results from the introduction of chemicals into a combustion chamber that causes spontaneous ignition upon their contact; this is a hypergolic reaction. Lewis, col. 2, ll. 5-17. In Lewis' hypergolic reactions, combustion is spontaneous when a fuel is contacted with a specific oxidizer, but that same fuel may not spontaneously combust if it is contacted with a different oxidizing material. Col. 2, ll. 5-14, 56-61; col. 3, ll. 1-25. Aside from one brief, broad disclosure, Lewis is further limiting because it narrowly discloses reaction components that include only a handful of organic and organic-halide compounds of boron, aluminum, and zinc. Col. 3, l. 32 to col. 4, l. 63. This narrow disclosure further limits the oxidizing agents that can be used to create Lewis' hypergolic reactions. In short, the examiner has provided no evidence or rationale as to why Lewis, which requires a combination of two hypergolicly matching chemical systems should be combined with Rinks' system, which requires a single chemical system initiated by a heat source. There simply is nothing in Lewis to extract out the single teaching of nitric oxide, separate if from its hyergolic partner, and apply it to the system of Rink.

Thus, for at least the aforementioned reasons Applicants respectfully request withdrawal of this rejection.

B. Rejection of Claims 3-5, 9, 10, and 12-16 over Rink in View of Lewis and Further in View of Other References

Claims 3-5, 9, 10, and 12-16 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Rink in view of Lewis as applied to claims 1, 2, 8, and 11, and further in view of U.S. Patent No. 3,321,342 to Tigrett et al. ("Tigrett") or U.S. Patent No. 5,962,808 to Lundstrom ("Lundstrom") or U.S. Patent No. 3,529,551 to Barbero et al. ("Barbero") for the reasons provided in the outstanding Office action at pages 3-4. Applicants traverse these rejections for at least the reason that none of Tigrett, Lundstrom, or Barbero cure the deficiencies of the combinations of Rink in view of Lewis as discussed above. As such, Applicants respectfully request the withdrawal of these rejections.

III. Conclusion

As always, if the Examiner believes that a conversation with Applicants' representative would be beneficial, the Examiner has an open invitation to contact the undersigned at (513) 241-2324.

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this application in a timely allowance of the pending claims.

It is this Applicant's understanding that no additional fee is due as a result of this amendment. If any charges or credits are necessary to complete this communication, please apply them to Deposit Account Number 23-3000.

Respectfully submitted,

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